1020-60-36 **Kiseop Lee*** (kiseop.lee@louisville.edu), 328 Natural Sciences Building, Department of Mathematics, University of Louisville, Louisville, KY 40292, and **Yong Zeng**. *Risk-Minimizing Hedge for a Partially-Observed Micromovement Model of Asset Price.* Preliminary report.

The classical option hedging problems have been studied mostly under market macrostructure models, which cannot be directly applied to market microstructure models. We study optimal hedging strategies for derivatives of a micromovement model of asset prices. The model has a latent intrinsic value process, assumed to be a diffusion process. Trading prices, observed only at random trading times by agents, are distorted observations of the intrinsic value due to market microstructure noises. We adapt the local risk minimization criterion to find optimal hedging strategies under full and partial information. We further show how a recently-developed nonlinear filtering technique can help out the computation of the hedging strategies. (Received August 02, 2006)